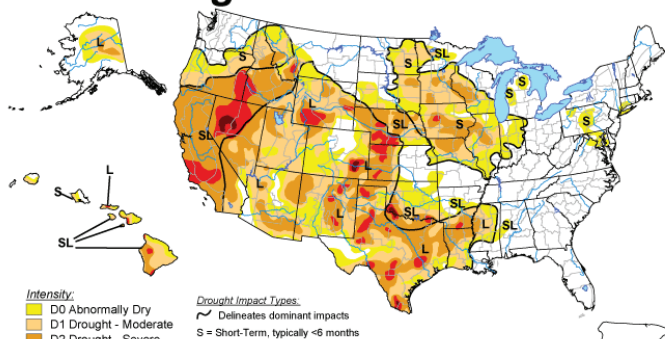


## Current Drought Conditions and the Seasonal Drought Outlook

### U.S. Drought Monitor September 24, 2013



**Intensity:**  
 D0 Abnormally Dry  
 D1 Drought - Moderate  
 D2 Drought - Severe  
 D3 Drought - Extreme  
 D4 Drought - Exceptional

**Drought Impact Types:**  
 S = Short-Term, typically <6 months (e.g. agriculture, grasslands)  
 L = Long-Term, typically >6 months (e.g. hydrology, ecology)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

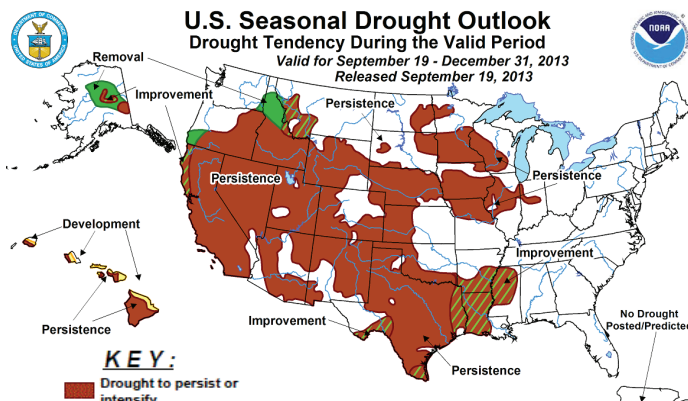
<http://droughtmonitor.unl.edu/>

Released Thursday, September 26, 2013  
 Author: Brad Rippey, U.S. Department of Agriculture

The geographical expanse of the drought in the western U.S. and High Plains decreased somewhat over the summer, while the Southern Plains had a slight (10%) expansion of drought. The Midwest saw the largest summer-time increase in drought, with a 30% increase in areas designated as moderate (D1) to extreme (D3) drought. The eastern U.S. is currently drought free. Overall, 46% of the contiguous U.S. is currently in moderate (D1) to exceptional (D4) drought.

### U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period  
 Valid for September 19 - December 31, 2013  
 Released September 19, 2013

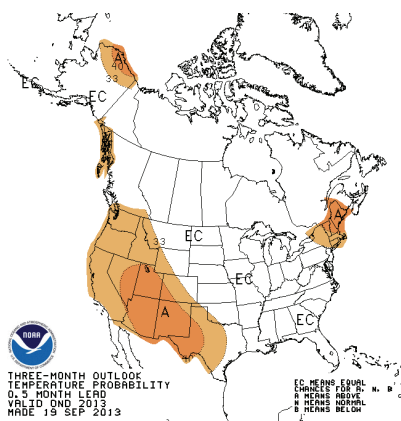


**KEY:**  
 Drought to persist or intensify  
 Drought ongoing, some improvement  
 Drought likely to improve, impacts ease  
 Drought development likely

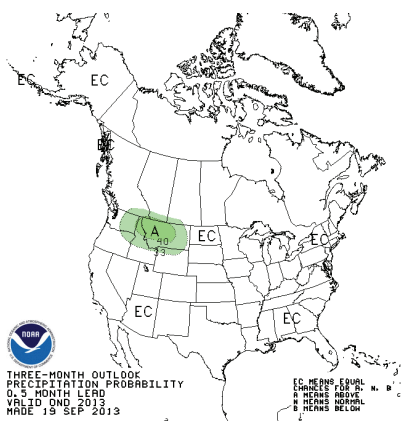
[www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)

Drought is expected to persist in most areas currently experiencing drought, according to the U.S. Seasonal Drought Outlook issued September 19, 2013. Some improvement is expected in the Northwest due to an increase in seasonal rains (green and hatched areas). The designation of improvement (green areas), does not imply ending of drought conditions, just a possible easing of conditions. The Hawaiian Islands are the only areas of the U.S. where potential drought development is indicated.

## Temperature and Precipitation Outlooks and Vegetation Status



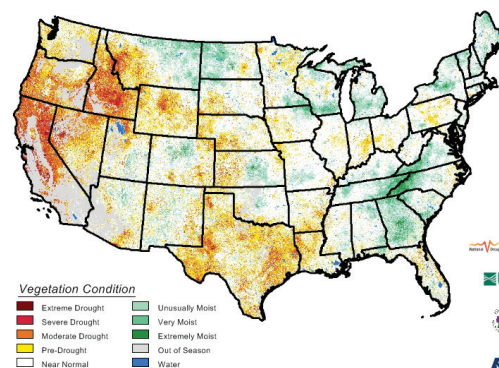
Western states are expected to experience above-normal temperatures, along with the New England states, the North Slope of Alaska and the Alaskan Panhandle. "EC" indicates temperatures have equal chances of being below normal, normal or above normal.  
[www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)



Montana, northern Idaho and western Washington State are anticipated to have above-normal precipitation. The rest of the country is designated as "EC," which means precipitation amounts have equal chances of being below normal, normal or above normal.

### Vegetation Drought Response Index Complete

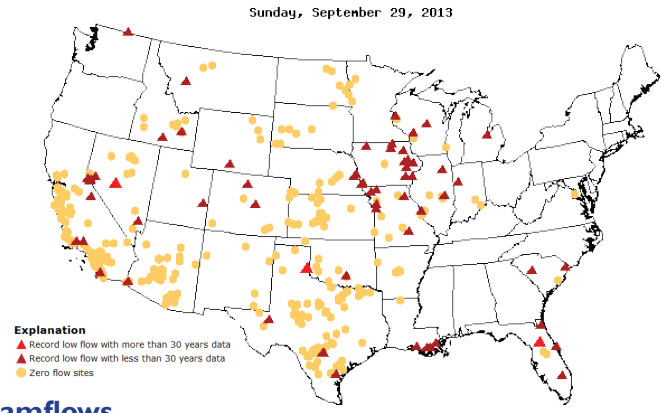
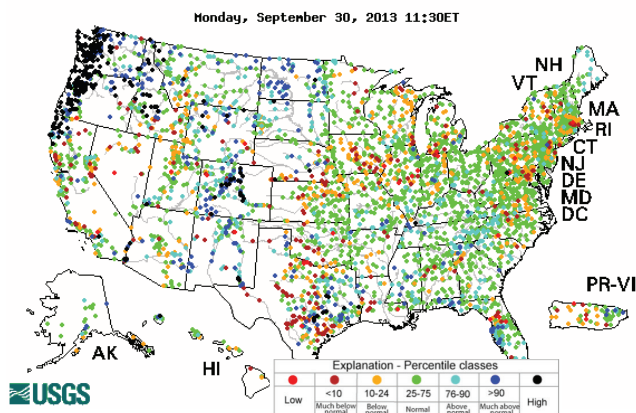
September 23, 2013



**Vegetation Condition**  
 Extreme Drought  
 Severe Drought  
 Moderate Drought  
 Pre-Drought  
 Near Normal  
 Unusually Moist  
 Very Moist  
 Extremely Moist  
 Out of Season  
 Water

Agricultural drought impacts are typically few in the fall as the growing season comes to a close. Long-term dryness continues to affect natural plants and vegetation in many areas of the U.S. For example, this map shows moderate to extreme drought conditions across large swaths of the western and southern U.S. The far northern Plains and many regions of the eastern U.S. are greener than average for this time of year. ([http://seca.unl.edu/web\\_archive/VegDRI/archive/130923/pngs/all\\_130923.png](http://seca.unl.edu/web_archive/VegDRI/archive/130923/pngs/all_130923.png))

# Water Resources



## Streamflows

The USGS current streamflow map (upper left) indicates there are many gauges across the country measuring below-normal streamflows (orange and red dots) compared to historical values for September 30th. Record low flows, compared to historical averages for September 29th, are shown in the map on the upper right. There is a cluster of record low flows in the Midwest (red triangles) and many streamgauges, especially in Texas and California, are indicating zero flow (tan dots). In contrast, recent above-normal precipitation in Colorado and the Pacific Northwest has resulted in above-normal streamflows in these areas, represented by dark blue and black dots ([www.usgs.gov](http://www.usgs.gov)).

## Colorado Flood - September 9 - 15, 2013



Exceptional rains alleviated drought conditions along the Front Range of Colorado and on the Plains, but at a great cost:

- 10 people confirmed or presumed dead
  - At least 1500 homes destroyed
  - Projected property losses of \$2 billion
- (<http://www.eqecat.com/catwatch/colorado-floods-likely-to-incur-economic-cost-greater-than-2-billion-2013-09-19/>)



- From September 9th - September 15, 2013, historic rains and flooding affected 5 major rivers and tributaries, 14 counties, and over a dozen cities and towns in Colorado.
- Maximum 7-day precipitation totals exceeded 17 inches of rain in several locations, and many areas received over 600% of the average September precipitation.
- Between Sep. 10 and Sep. 24, moderate (D1) to extreme (D4) drought in Colorado decreased from 93% to 40% of the state.
- The very heavy rainfall was due to an unusually moist and slow-moving weather pattern. The combination of the unusually moist air being lifted along both a stationary surface front and the Front Range of the Rocky Mountains resulted in rainfall that persisted for several days and affected a large area. Many of these areas had experienced drought conditions and record-setting heat in the weeks preceding the event.
- A number of federal, state and local agencies as well as the university research community are examining various facets of the event to place it in an appropriate historical context.
- The heavy rains in Colorado did not reach the west side of the Continental Divide, thus drought conditions along the Colorado River were not alleviated. Lakes Powell and Mead are currently at 45% and 47% capacity, respectively. Guidelines require Reclamation to decrease releases from Lake Powell in 2014, prompting water authorities in Nevada to seek disaster aid due to long-term drought conditions that are harming the water supply and are not expected to improve in the near future.

## Outlook Partners

Cooperative Institute for Research in Environmental Sciences  
[cires.colorado.edu](http://cires.colorado.edu)  
 DOI/Bureau of Reclamation  
[www.usbr.gov](http://www.usbr.gov)  
 DOI/United States Geological Survey  
[waterwatch.usgs.gov](http://waterwatch.usgs.gov)  
 DOI/WaterSMART  
[www.usbr.gov/WaterSMART](http://www.usbr.gov/WaterSMART)

National Interagency Fire Center  
[www.nifc.gov](http://www.nifc.gov)  
 National Drought Mitigation Center  
[drought.unl.edu](http://drought.unl.edu)  
 NOAA/NWS Climate Prediction Center  
[www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)  
 NOAA/National Integrated Drought Information System  
[www.drought.gov](http://www.drought.gov)

South Dakota State University Extension  
[www.igrow.org](http://www.igrow.org)  
 US Army Corps of Engineers  
[www.usace.army.mil](http://www.usace.army.mil)  
 USDA/Office of the Chief Economist  
[www.usda.gov/occe](http://www.usda.gov/occe)  
 USDA/NRCS National Water and Climate Center  
[www.wcc.nrcs.usda.gov](http://www.wcc.nrcs.usda.gov)  
 USDA/US Forest Service  
[www.fs.fed.us](http://www.fs.fed.us)

Contacts: Lisa Darby ([lisa.darby@noaa.gov](mailto:lisa.darby@noaa.gov))  
 Kelly Mahoney ([kelly.mahoney@colorado.edu](mailto:kelly.mahoney@colorado.edu))  
 Laura Edwards ([laura.edwards@sdstate.edu](mailto:laura.edwards@sdstate.edu))



National Drought Outlook | September 2013  
[www.drought.gov/drought/content/resources/reports](http://www.drought.gov/drought/content/resources/reports)